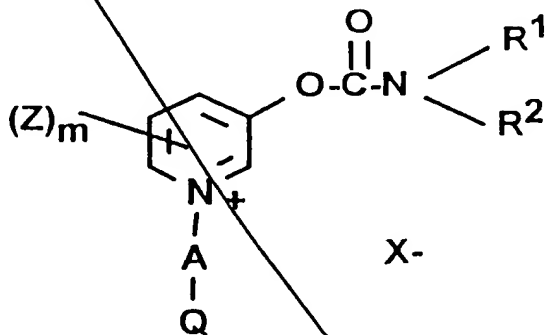


In the Claims: ✓

Please cancel Claims 1-14 of the subject application without prejudice or disclaimer. ✓

Please add new claims 15-40 as follows:

--15. A 3-position substituted pyridinium derivative compound represented by the formula:



Wherein R₁ is -H, lower alkyl, alkenyl, aryl, aralkyl, cycloalkyl, cycloalkylalkyl,

R₂ is lower alkyl alkenyl, aryl, aralkyl, cycloalkyl, cycloalkylalkyl,

A is an alkylene, alkenylene, alkynylene group spacer, and Z designates dialkylcarbamoyl or lower alkyl and m is zero or 1.

Q is a sugar and phosphoryl-sugar group transporter recognition moiety adapted to enhance the transport of polar compounds via the Blood brain barrier, through cell membranes, through kidney tubuli and through the gastrointestinal wall, which Q entity can be optionally substituted or coupled to a physiologically active acceptable moiety,

and wherein X⁻ is an anion.

2
16. The compound of claim 15, wherein Q is selected from the group consisting of aldoses, ketoses, alditols, ascorbic acid and its derivatives, disaccharides, oligosaccharides, amino sugars, phosphorylated sugars and polysaccharides.

3 1
17. The compound of claim ~~15~~, wherein A is $(CH_2)_n$, where n is from 2 to 24.

4 2
18. The compound of claim ~~16~~, wherein said aldoses are aldohexoses.

5 2
19. The compound of claim ~~16~~, wherein said ketoses are 6-deoxy hexoses or ketohexoses.

6 2
20. The compound of claim ~~16~~, wherein said alditols are cyclohexitols.

7 2
21. The compound of claim ~~16~~, wherein said aldoses are selected from a group consisting of glucose, mannose, galactose, aldopentoses, aldotetroses, aldotrioses, and their corresponding aldonic acids and uronic acids.

8 2
22. The compound of claim ~~16~~, wherein said ketoses are selected from fructose, sorbose and pentakeroses.

9 5
23. The compound of claim ~~19~~, wherein said 6-deoxy hexose is fucose.

10 2
24. The compound of claim ~~16~~, wherein said alditol is selected from the group consisting of mannitol, dulcitol, ribitol, erythritol, and glycerol.

11 6
25. The compound of claim ~~20~~, wherein said cyclohexitols are selected from inositol and myoinositol.

12 2
26. The compound of claim ~~16~~, wherein said disaccharides are selected from lactose, maltose and sucrose.

13 2
27. The compound of claim ~~16~~, wherein said amino sugar is selected from glucoseamine and N-acetylglucoseamine.

14 ² 28. The compound of claim ~~16~~, wherein said phosphorylated sugar is phosphatidylinositol.

15 ² 29. The compound of claim ~~16~~, wherein said polysaccharides are selected from cellulose and amylose.

Sub⁴
C² } 30. ~~The compound of claim 16, wherein the polysaccharides are covalently coupled to the PYR-hydrocarbyl moiety or attached by a physical interaction.~~

17 ¹ 31. A pharmaceutical composition containing an effective quantity of a compound of claim ~~15~~, and a pharmaceutically acceptable carrier.

18 ¹⁷ 32. A composition according to claim ~~31~~, wherein A is a hydrocarbyl group (CH₂)_n, wherein n is 2 to 24.

19 ¹⁸ 33. A composition according to claim ~~32~~, wherein n is 4 to 12.

B
contd } 20 ¹⁷ 34. A method of treating a subject having symptoms of CNS diseases associated with cholinergic disorders, and side effects induced by antimuscarinic tricyclic antidepressants, comprising the steps of administering an effective amount of the pharmaceutical composition of claim ~~31~~, thereby alleviating said symptoms and side effects.

Sub⁴
C³ } 35. ~~Use of a pharmaceutical composition according to claim 31, in the treatment of Alzheimer disease, tardive dyskinesia, effects of stroke, neuralgic pains and general analgesic effect.~~

22 ¹ 36. A pharmaceutical composition comprising an effective quantity of a compound according to claim ~~15~~, in combination with known antimuscarinic, antinicotinic drugs and antagonists of the excitatory amino acid receptors such as glutamate receptor.

Sub't
C4
1
24
37. ~~Use of a pharmaceutical composition according to claim 36, for the treatment of, and alleviation of symptoms of peripheral cholinergic disorders, glaucoma, myasthenia gravis, treatment of urine bladder dome, neurogenic urine bladder, hypercholinergic impairments, intoxication caused by reversible and irreversible cholinesterase, and for the pretreatment of organophosphorus intoxication.~~

17
24
38. A pharmaceutical composition according to claim ~~31~~ wherein the composition is a sustained release composition.

B
concl'd
Sub't
C5
25
39. A pharmaceutical composition according to claim ~~38~~ wherein the polysaccharides are cellulose or amylose.

24
40. ~~Use of a pharmaceutical composition according to claim 38 for the delivery of carbamates to the peripheral and central nervous system.--~~

REMARKS

Claims 1-14 were pending. Applicants have hereinabove canceled claims 1-14 without prejudice or disclaimer and added new claims 15-40.

The present response is intended to be fully responsive to all points of rejection raised by the Examiner and is believed to place the application in condition for allowance.

By virtue of this Amendment, claims 1-14 have been canceled without prejudice. New claims 15-40 are pending. Applicants note that support for the new claims is found on pages 4-5 and 24-26. Applicants request entry of the amendment.

Rejections under 35 U.S.C. §112, First Paragraph

In the Office Action, the Examiner rejected Claim 14 under 35 U.S.C. §112, first paragraph, as the Examiner asserted that the specification fails to provide enablement for the scope of the claims.